

Montana and the Sky

Vol. 33, No. 7

MONTANA AERONAUTICS DIVISION

July, 1982

New Aerospace Teacher Workshop Directors

Kristy Bick was selected as director for the newly established Glendive program taught at Dawson County Community College. Kristy is a Huntley Project teacher, has participated in a past Aerospace Workshop and is an enthusiastic promoter of aerospace education.

Stan Easton recently completed his first Aerospace Workshop as director of the Bozeman course on the MSU campus. Stan replaced Bernie Allen who directed the workshop in Bozeman for several years. Stan is a professor at the MSU School of Education.

We are looking forward to reaching many educators with the aviation-aerospace story through Kristy and Stan. Good luck!



The new Aerospace Teacher Workshop Director for Bozeman, Stan Easton.



Left to right, Helen Frizzell, President of the National Association of Aerospace Educators, Dr. Ed Dahy, Navy Educational Specialist, and Kristy Bick, the new Aerospace Teacher workshop director for Glendive.

Navy Provides Educational Opportunity Trip

As part of the Navy recruiting program, Dr. Ed Dahy was able to arrange for a three day group tour of the San Diego Naval Training Center, the Recruit Training Command and of a ship in port.

Aerospace teacher workshop participants from all over Montana were chosen for this trip through random drawings. The group was limited to approximately sixty due to Navy aircraft limitations. The tour departed Malmstrom AFB in Great Falls on July 21 and returned July 24.

Whirly-Girls Scholarship

Applications are now being accepted for the two Whirly-Girls 1983 Scholarships which will be awarded next February to two deserving women pilots for the use toward obtaining an initial or an add-on helicopter rating.

For 1983, Tim Tucker, President Pacific Wing & Rotor, will give the first annual Whirly-Girls/Pacific Wing & Rotor Scholarship. This scholarship will provide a U.S. woman pilot with \$4,000 toward a commercial helicopter rating at Pacific Wing & Rotor's Long Beach, California facility.

The 1983 Doris Mullen \$4,000 scholarship will also be awarded to a woman pilot to assist her in obtaining a helicopter rating at the school of her choice.

Scholarship applicants must hold a current pilot certificate, demonstrate financial need, explain usefulness of helicopter rating to her present or future helicopter-related career, and intend to make use of the helicopter rating to further the involvement of women in helicopter-related activities.

Applications are available from the Whirly-Girls, Suite 700, 1725 De Sales Street, N.W., Washington, D.C. 20036. They must be completed and received by the Whirly-Girls no later than November 1, 1982.

Administrator's Column

On June 1, 1982, I had the pleasure of being invited by the FAA to attend a ceremony at Kalispell to honor Mountain West Helicopters for their exemplary performance in helicopter life saving missions while at the same time maintaining high safety standards resulting in an accident free operation.

Mr. Charles Foster, Director of the FAA's Northwest Mountain Region flew in from his Seattle headquarters to make the presentation.

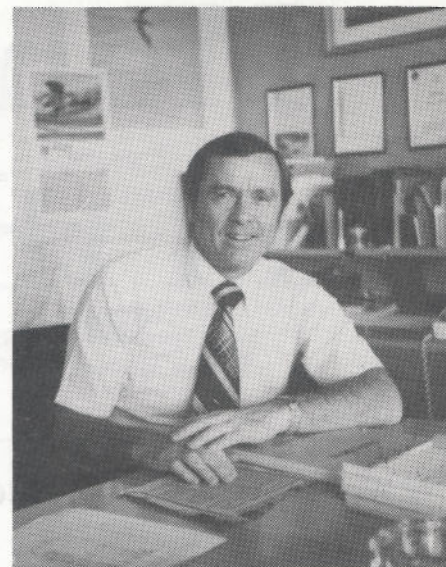
Ted Pardo, President of Mountain West Helicopters, accepted the award on behalf of the company.

I would like to congratulate Ted and all of the personnel of Mountain West Helicopters for receiving this well deserved, prestigious FAA award.

* * * * *

The Montana Aeronautics Board met in West Yellowstone on July 14 and 15, 1982. Ron Dent, the Aeronautics Division's Airport Manager for Yellowstone Airport, conducted a tour of the facilities and in particular the new runway and taxiway lighting project now in progress. Gophers had caused extreme damage to the underground wiring necessitating new wire being placed in conduit. The project was eligible under the ADAP program; therefore, 90% of the cost is being paid from the aviation users trust fund administered by the FAA.

Of nostalgic interest was the board's special recognition of Frank Wiley, the first Montana Director of Aeronautics. Board Chairman, Herb Sammons, presented Frank with a beautiful elkhorn belt buckle with the famous Wiley buffalo head wings having been hand carved on it. Dick Hatfield, Laurel, was commissioned to do this beautiful work of art. Mr. Wiley was also presented with a tie tack version of the same buffalo head wings which he had designed and had copyrighted many years ago. Frank and his wife Rose are in Montana visiting for the summer.



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Herb Sammons presenting Frank Wiley with elk horn belt buckle with buffalo wings hand carved on it.



Montana Aeronautics Board members with Frank Wiley who is displaying the buffalo wings belt buckle carved from an elk horn.

CALENDAR

September 24 to 26 — Mountain Search Pilot Clinic, Kalispell.

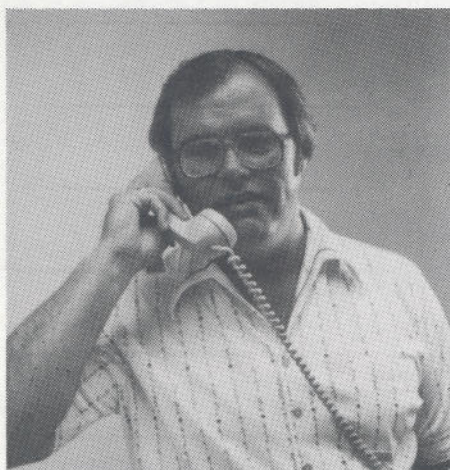
September 26 — Sidney Terminal Grand Opening.

October 2 — Great Falls to Jackpot Air Race. Contact Patti Thompson, Race Director for information, 452-8800.

October 8 & 9 — Montana Flying Farmers Convention, Sheraton Inn, Great Falls.

October 31 to November 5 — AOPA 27th Annual Convention, Las Vegas, NV. Call 301-951-3947 for further information.

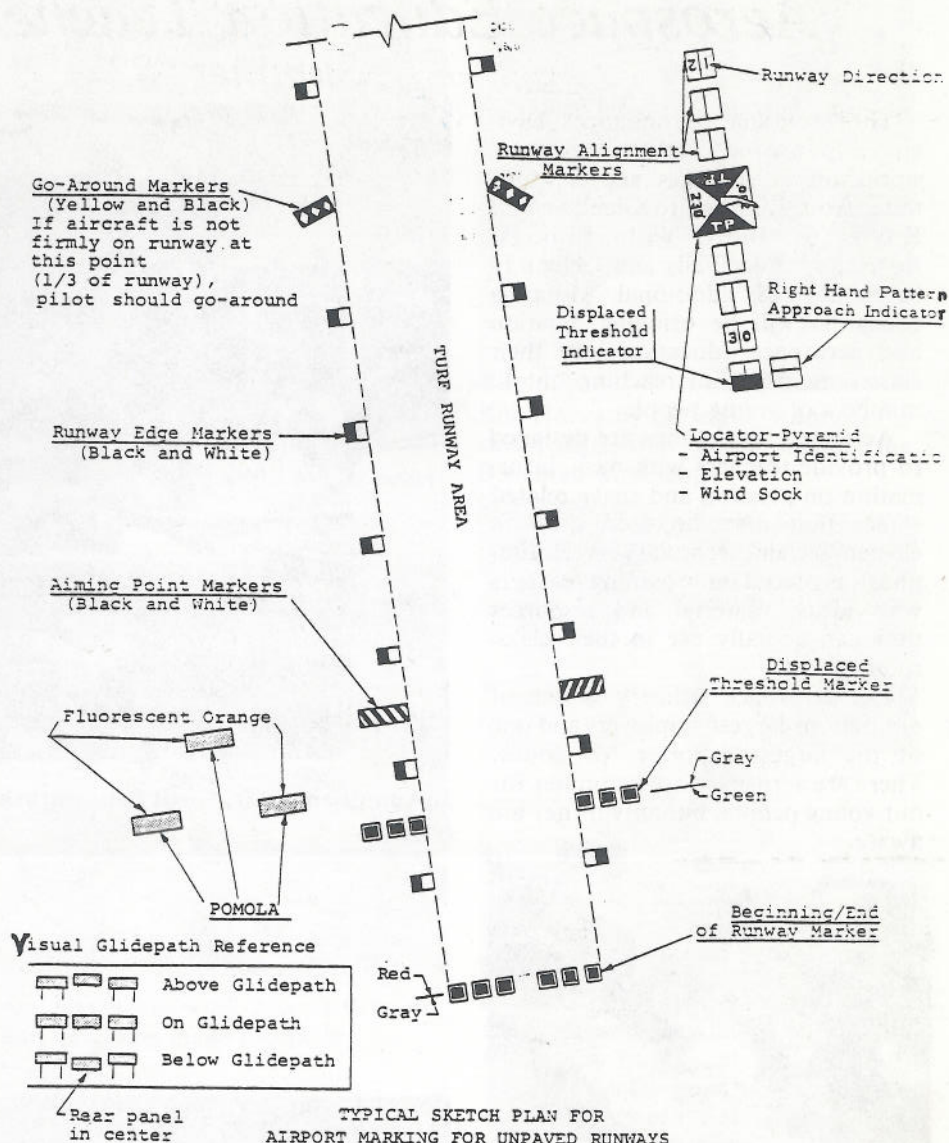
Experimental Marking



**By: Dave Kneedler, Chief
Airport/Airways Bureau**

Those of you who have recently visited Elliott Field (Rock Creek Airport) just east of Missoula, near Clinton, will have noticed some unfamiliar panels along the runway edges and elsewhere on the airport. All of these devices go together to make up an experimental runway marking system being tested at a handful of airports in various parts of the country. The system was developed as a cooperative effort between several state aeronautical departments and the FAA Technical Center in Atlantic City, New Jersey.

To the right you will find a rough sketch of the general marking system layout with very brief descriptions of the purpose of the various panels. In future issues, we will feature these new and therefore unfamiliar panels individually, providing photographs of each, together with a more detailed description of their purpose. We will also be publishing a questionnaire, which we hope you will use to give us your input and impressions of this experimental system. Without feedback from the flying public, we will have no way of knowing whether the system is good or bad or what changes might improve it.



GAMA Safety Series

Weather is a factor in forty percent of all fatal general aviation accidents. That's one reason that the General Aviation Manufacturers Association has prepared its latest and most ambitious safety presentation ever — a one hour, professionally-produced slide/tape program on the hazards and warning signs of adverse aviation weather. "On Weather" will be shown at FAA Accident Prevention Seminars across the nation this year

and is also available at the Montana Aeronautics Division. Contact Fred Hasskamp for further details at the Division.



Aerospace Education Teacher Workshops

Summer '82

The Montana Aeronautics Division sponsored eight Aerospace workshops at colleges across Montana, from Kalispell to Glendive and Havre to Butte with Billings, Bozeman, Great Falls and Helena in between! 128 additional Montana educators will be bringing aviation and aerospace education into their classrooms this fall reaching untold numbers of young people.

Aerospace workshops are designed to provide teachers with basic information on aviation and space related topics that may be used at both elementary and secondary levels. Emphasis is placed on providing teachers with ideas, material and resources they can actually use in their classrooms.

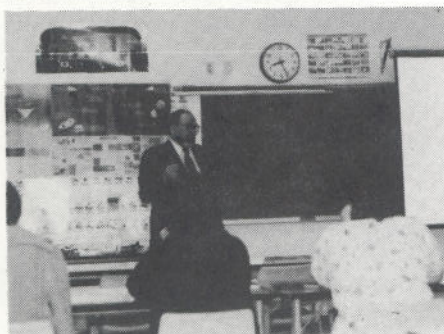
The aerospace industry is one of our nations largest employers and one of the largest exporters of goods. There are aerospace opportunities for our young people, but only if they are aware.



JoAnn Eisemzimer, Great Falls workshop director, during one of the workshop sessions.



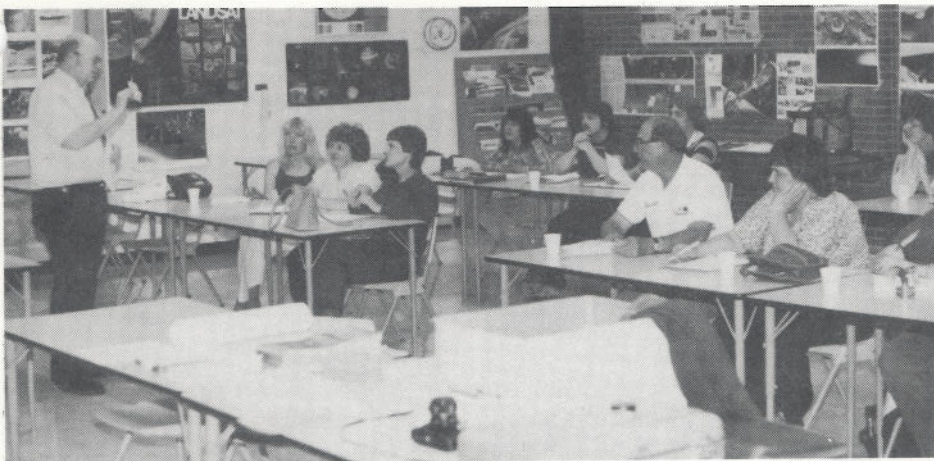
Kalispell workshop participants review handouts while workshop director Russ Larson looks on.



Dr. Ed Dahy, Navy Educational Specialist, during an aerospace workshop presentation.



Pat Johnson, left, Helena workshop director and Helen Frizzell, 2nd from right, President of the National Association of Aerospace Educators during the Helena workshop.



Ron Kologi, Northern Montana College workshop director, addressing teacher participants.



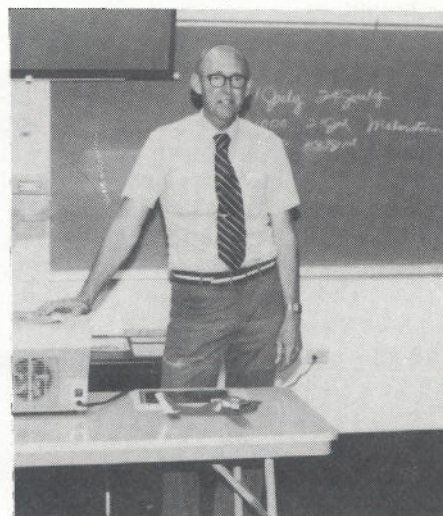
Bob Conklin, right, Butte workshop director, watches as workshop participants select from the many resource materials and handouts made available.



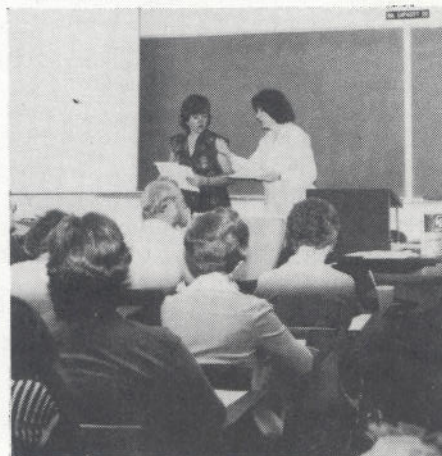
Helen Frizzell, far left, addressing the workshop in Glendive. Workshop director Kristy Bick is standing.



Bill Horvath, far right, addresses a small discussion group during the Bozeman workshop.



Fred Hasskamp, Chief, Safety and Education Bureau at the Montana Aeronautics Division, made a presentation at each of the aerospace education teacher workshops.



Helen Frizzell, left, and Billings workshop director Dorothy Curtis, during the Billings workshop.

‘Fuelish’ Problems

Each year, numerous aircraft are inadvertently filled with fuel of the wrong octane or fuel contaminated by water, sand, rust, fuel additives or “what have you.” On some occasions — at least 10 over the past three years — aircraft accidents are caused by improper or contaminated fuel. Close attention to compatibility of fuel and aircraft is necessary to prevent possible disaster, as well as costly contamination.

A review of accidents attributed to fuel problems reveal that many power failures were due to the use of improper fuel or careless servicing. The frequency of improper fueling will diminish if operators and personnel refueling aircraft maintain vigilance.

The FAR’s require that aircraft fuel filler openings be marked to show the word “FUEL” and the minimum fuel grade or designation for the engine(s). Twenty aircraft were recently found at one small airport with fuel placards missing or unreadable.

It is equally important that tank vehicles be conspicuously marked to show the type of fuel carried. Likewise, tank vehicle hose lines should be marked.

Fuel contamination is a serious safety problem because it can occur whenever a piston-engine aircraft is refueled at a facility where both avgas and jet fuel are available. A pilot can avoid a mistake by supervising the refueling of his aircraft.

Never allow a fuel grade lower than that specified for normal operation. Some manufacturers will permit the next highest grade to be used for specific periods. Again, always check the Pilots Operating Handbook.

Know the color of the proper fuel for the aircraft and check it before every flight.

OCTANE	COLOR
80/87	Red
100LL	Blue
100/130	Green
115/145	Purple
Jet A	Clear

When fuel is mixed in larger degrees, it becomes clear in color.

During preflight, visually drain and inspect all fuel samples in accordance with the aircraft manufacturer’s recommended procedure. Generally, water and other contaminants will settle to the bottom of the fuel tank where the drains and sumps are located. Be suspect of drains that don’t drain properly . . . they may be partially obstructed.

Remember these tips:

- Use only fuel recommended by the engine and aircraft manufacturer.
- “Turbo Powered” markings on some aircraft do not mean turbo-jet.
- Don’t use fuel additives that have not been approved by the FAA. Follow mixing instructions carefully and to the letter.
- If feasible, keep the fuel tanks full. Water condenses on the walls of partially filled tanks and enters the fuel system.
- Filter all fuel entering the tank.
- Drain fuel sumps regularly.
- Periodically inspect and clean the fuel strainer (screens) and occasionally have the carburetor bowl flushed as recommended by the aircraft manufacturer.

Fuel contamination is almost always avoidable. The damage and accidents caused by improper fuel grade or contaminated fuel is a “fuelish” way to end a flight.

Hazards

Many aviation hazards—high winds, turbulence, deteriorating weather, ice, thunderstorms—are visible or otherwise apparent to pilots. When confronted with any of these hazards, safe pilots depend on skill and good judgement. They can’t overlook these hazards. They’re too obvious.

But other types of aviation hazards can go unrecognized until it’s too late to take corrective action. Among these subtle dangers are pilot fatigue, complacency caused by boredom, and high density-altitude conditions. These hazards are not visible. They

are very often not readily apparent. But safe pilots don’t overlook these dangers, either. They still depend on skill and good judgement. You, too, can deal successfully with these dangers. Be aware of their possibility, and watch for symptoms. You disregard them only at great risk.

(Aviation Monthly)

Proper Maintenance

It has come to our attention that a helicopter experienced an explosion which blew out windows and the right hand passenger door was thrown 40 feet from the craft. Fortunately, the helicopter was sitting on the ramp, unattended at the time, in the hot sun.

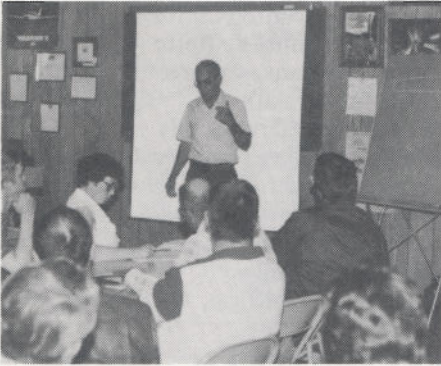
A fire extinguisher was overcharged and in the heat of the day exploded like a bomb and did considerable damage to the helicopter.

An aircraft fire extinguisher is a very special piece of equipment. In the event of an in-flight fire, it can save the lives of those on board. On the ground it can save the aircraft. The fire extinguishing agent in the extinguisher must be suitable for fighting the possible fire. The extinguisher must also meet a toxicity requirement to protect the personnel when they cannot step out of the aircraft at the time of use. In most cases, the extinguisher is minimum weight, hence strength, that will satisfy burst requirements.

Because the airborne fire extinguisher is a special piece of equipment, it should be serviced only by licensed personnel. In areas where regulations do not require this type of servicing, the operator should contact the local fire agency to locate qualified servicing personnel. Insist the extinguisher be serviced with the agent for which it was designed.

With proper maintenance, your fire extinguisher can be a friend that saves lives and/or your aircraft. Don’t let it become a foe!

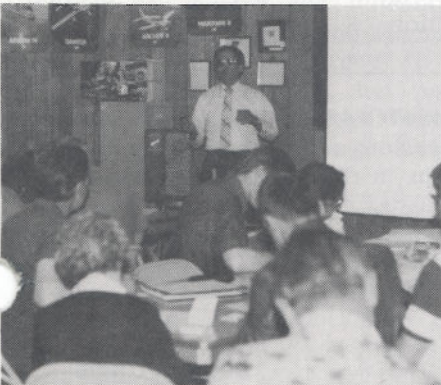
FAA Pilot Proficiency Clinic



Jack Van De Riet made a density altitude presentation during the evening ground school.



There were approximately 25 participants who received the FAA Phase I Pilot Proficiency certificate and wing pin on the completion of the clinic.



Mick Wilson, FAA APS, discussing accident prevention during the evening session.



Nils Pearson submitted to a demonstration by Mick Wilson, FAA APS, on the effects of vertigo with a baroney chair.



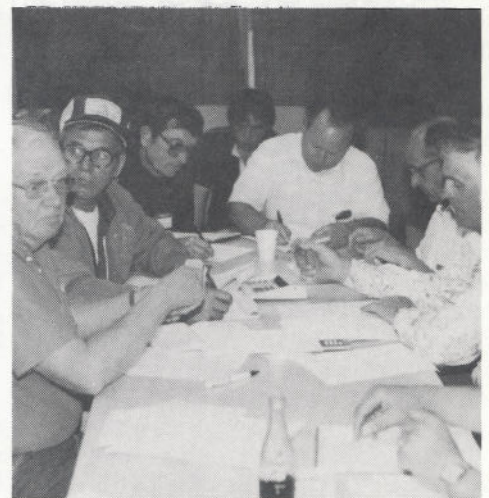
Jack Van De Riet measuring climb performance with his theodolite.



Lloyd Adams, Chief of the FAA Billings FSDO and Mick Wilson, FAA Accident Prevention Specialist presented Mike Ferguson with an FAA Phase I Pilot Proficiency Certificate and wing pin upon his completion of the clinic.



Mick Wilson instructed a pinch hitter course which ran concurrent with the Pilot Proficiency Clinic.



Clinic participants figure their individual weight and balance, along with their climb performance relative to density altitude.

CONGRATULATIONS!
FAA Certificates Issued
Recently to Pilots

Private

Paul E. Tinsley, Plentywood
 Paul G. Johnson, Billings
 Tim L. Townsend, Billings
 Jackson J. Payer, Jr., Colstrip
 Stephen R. Davenport, Poplar
 William O. Pliley, Glasgow
 Shannon Krause, Kalispell
 Larry Baier, Kalispell
 Robert Osier, Butte
 Norman Myers, Kalispell
 Gregory Weatherly, Kalispell
 William Stone, Whitehall
 Christopher Smith, Bozeman
 George Witkowski II, Glendive
 Barry Riesland, Bozeman
 Christopher Philcox, Bozeman

Kerry Krietinger, Three Forks
 Chase Hibbard, Helena
 Vernon Droge, Manhattan
 David Jones, Corvallis
 Lance Edwards, Missoula
 John Martin, Browning
 Carl Solvie, Conrad
 John Waller, Cut Bank
 Terry Fike, Santa Rita
 Robert Robertson, Sand Coulee
 Paul Lindstrom, Great Falls
 Richard James, Great Falls
 Dan Burns, Cut Bank
 Lawrence Brooke, Pony
 Doug Kaercher, Havre
 Wayne Hinz, Helena
 Charles Tielking, Helena
 Brian Penwell, Great Falls
 Melvin Marken, Great Falls

Instrument

Donald D. Johnson, Billings
 (Commercial)

Clyde H. Robinson, Dodson (CFI)
 Gary E. Watson, Glasgow
 (Commercial, CFI)
 Roy Fink, Butte (Commercial)
 Richard Johnson, Butte
 John Huggans, Conner
 (Commercial)
 Bob Miller, Great Falls
 Ryan Sandvig, Fort Benton
 Walter Conell, Jr., Helena
Multi-Engine
 John R. Viviano, Billings
 (Commercial)
 Theodore G. Kopp, Glendive (CFI)

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MEMBER
NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE—"To foster aviation, as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform laws and regulations; and to otherwise encourage cooperation and mutual aid among the several states."



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